STAFF COMMENTS FOR PLANNING COMMISSION

MEETING DATE: January 18, 2006

FINAL PLAN: PI-V 050027 (as part of SP-05-0013)

TITLE: **Watkins Mill Town Center / Metropolitan Grove Road**

REQUEST: **FINAL PLAN APPROVAL**
Final Forest Conservation Plan and Wildlife Management Plan Approval

ADDRESS: Casey Metropolitan West
Located between the CSX Railroad tracks and I-270, north of Metropolitan Road.

ZONE: MXD (Mixed Use)

APPLICANT/REPRESENTATIVE/ATTORNEY/DEVELOPER:

Applicants:	B.P. Realty Investments, LLC (Peter Henry)
Property Owner:	BP Realty Investments
Engineer:	Rodgers Consulting, Inc. (Gary Unterberg)

STAFF PERSON: Jacqueline Marsh, Planner
Erica Shingara, Environmental Specialist

Enclosures:
Staff Comments
Exhibit 1: Location Map
Exhibit 2: PI-V-05-0027 Application
Exhibit 3: Mailing Label List
Exhibit 4: Final Wildlife Management Plan
Exhibit 5 (a-u): Final Forest Conservation Plan (PI-V 050027)
Exhibit 6: Color Rendering of Approved SDP-05-002
Exhibit 7: Approved Preliminary Forest Conservation Plan
Exhibit 8: Environmental Waiver Resolution (No. R-89-05)
Exhibit 9: Letter from Dusty Rood (Rodgers Consulting) to Ms. Erica Shingara: 7/6/05
Exhibit 10 (a-e): Approved Natural Resource Inventory/ Forest Stand Delineation

STAFF COMMENTS

BACKGROUND:

The Applicant, BP Realty Investments, is seeking approval of the Final Forest Conservation and Wildlife Management Plan for the development of approximately 126 acres of the Casey West – Metropolitan property, known as Parcels P33, P211, P888 and P910, owned by BP Realty Investments, LLC. The subject property is located north of Metropolitan Grove Road, between the CSX Railroad tracks and I-270, and borders existing City owned parkland, a County owned abandoned vehicle impoundment lot, the Devlin Tract, and the McGown tract. The site currently contains approximately 77 acres of forest and 49 acres of active agriculture. The site is surrounded by a number of different land uses that include: office, research and development, multi-family units, single-family attached units, and industrial (vehicle storage) uses.

The project was granted Schematic Development Plan Approval (SDP-05-002) on April 18, 2005 for single-family detached units, single family attached units, two-over-two condominium units, high-rise condominium units, a hotel, retail/commercial space, and office space to be developed as part of an integrated transit-oriented mixed use development known as Watkins Mill Town Center. A Preliminary Forest Conservation Plan was approved as part of the SDP approval. Following SDP approval, the Mayor and Council approved an environmental waiver (R-89-05) on September 19, 2005. The final site plan (SP-05-0013) was submitted on November 28, 2005 and is currently undergoing staff review. Staff has been meeting with the applicant regularly to address any outstanding SDP conditions and the final site plan is anticipated to be brought to the Planning Commission in the near future.

APPLICATION:

The applicant is requesting approval of the Final Forest Conservation Plan (PI-V 050027) and Wildlife Management Plan. The Final Forest Conservation Plan (FFCP) is a requirement of Chapter 22 of the City Code, "Trees and Forest Conservation." In accordance with the Zoning Ordinance (Section 24-169 through 172), the FFCP is considered a part of the site development plan that must be submitted to the City Planning Commission for review and approval.

According to Section 31 of Regulation 01-01, "City of Gaithersburg Environmental Standards for Development Regulation," when a project is anticipated to impact wildlife or their habitats, wildlife management recommendations shall be incorporated into the site development package as a wildlife management report or plan. Considering the site contains approximately 126 acres of undeveloped forest and agriculture land suitable for wildlife habitat, the Natural Resources Inventory/Forest Stand Delineation (NRI/FSD), approved on December 2, 2004, included a condition requiring the applicant to develop and implement a Wildlife Management Plan (WMP). Upon completion of the WMP, the Planning Commission approves the appropriate wildlife management techniques required for implementation by the applicant.

An important goal of the WMP is to minimize impacts to wildlife whenever feasible. A lesson learned from the Lakelands wildlife paradigm is the importance of understanding the site's wildlife activity schedule and coordinating construction activities in a manner that avoids impacting wildlife and habitat during sensitive periods, such as mating, nesting or gestation, birth, and rearing. As depicted in the Wildlife Activity Matrix, the most sensitive period for most species found on this site begins in early March and continues through the summer. Since final site plan approval and subsequent site construction work is anticipated in Spring 2006, when wildlife are most active and susceptible to adverse impacts, the team of wildlife experts recommend early removal of vegetation (trees, shrubs, brush, and tall grass) in February and March. The early removal of vegetation during this period of limited wildlife activity should limit direct wildlife impacts and also encourage wildlife to leave the disturbance zone and relocate to adjacent safe habitats in time to give birth and raise their young in the spring. The intent of this strategy is to avoid having animals and their offspring trapped in dens or nests within the construction disturbance zone. Therefore in order to implement this key recommendation of the WMP, the applicant is seeking permission to proceed with Phase I forest and vegetation clearing activities[1] in early February.

The City Code does not contain logging provisions that would only allow the applicant to clear trees on the property. According to Chapter 8, "Erosion and Sediment Control, Stormwater Management," the clearing of trees requires a grading permit which entails approval of the Final Forest Conservation Plan by the Planning Commission, approval of an Erosion and Sediment Control Plan by the Department of Public Works, Parks Maintenance, and Engineering, and compliance with the environmental standards regulation (i.e., approvals of an environmental waiver and wildlife management plan). Therefore, in order to meet the permit requirements that allow Phase I vegetation removal as recommended by the WMP, the applicant must first receive approval of the WMP and FFCP by the Planning Commission.

Since the WMP and FFCP are elements of the final site plan, their review and approval are typically concurrent with the final site plan review. However, this is a unique situation where in order to implement a key recommendation of the WMP, the applicant is requesting approval of the Final Forest Conservation Plan and Wildlife Management prior to complete site plan approval.

The City Attorney has indicated that the FFCP and WMP may be brought to the Planning Commission for review and approval prior to the full site plan review and approval. These items may be brought forward at this time because the applicant already has approvals for the SDP, Preliminary Forest Conservation Plan, and environmental waiver. These approvals give the applicant significant development rights, effectively establish the site layout, and determine the approximate limits of disturbance and clearing. Due to the nature and restrictions of the site's layout, staff does not foresee that changes in the final site plan will generate significant changes to the FFCP.

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[1] Phase I clearing activities involve the removal of forest and vegetation only in the area outside of the stream valley buffer and south of the Corridors Cities Transitway; no grubbing (i.e., removal of stumps) or grading is permitted without full site plan approval.

NATURAL RESOURCE INVENTORY/FOREST STAND DELINEATION:

The Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) approved on December 2, 2004 by the City's Environmental Specialist (Ex. 10), included the following condition:

> #2. A Wildlife Management Plan is required per Section 31 of the "Environmental Standards for Development Regulation."

The applicant has developed the Wildlife Management Plan in accordance with Section 31 of the "Environmental Standards for Development Regulation."

ENVIRONMENTAL WAIVERS:

A condition of approval of SDP 05-002 was for the applicant to obtain approval of an environmental waiver from the Mayor and City Council for intrusions into the stream buffer, as required by the "Environmental Standards for Development Regulation." On September 19, 2005, the Mayor and Council approved an environmental waiver. Resolution R-89-05 (Ex. 8) approved the environmental waiver with eight (8) conditions:

1. The limits of disturbance outlined in the waiver application are not absolute and may be reduced by staff during final site plan review and field coordination. The applicant must work with staff to minimize clearing, grading, tree removal, and encroachments into stream and wetland buffers; which may include retaining walls, longer spans for stream crossings, headwall modifications, modifications to sewer and water connections, wetland and waterway restoration measures, and the incorporation of wildlife migratory corridors in crossing designs, if determined beneficial and feasible.
2. The applicant will develop and implement a stream restoration plan to stabilize stream banks and restore habitat using primarily bioengineering methods, to be ultimately approved by City staff, the U.S. Army Corps of Engineers, and Maryland Department of the Environment.
3. The applicant will work with staff, the U.S. Army Corps of Engineers, and Maryland Department of the Environment during final site plan to obtain approvals and permits for wetland and waterway impacts.
4. The applicant will obtain approvals of the stormwater management plan and sediment and erosion control plan from the Department of Public Works, Parks Maintenance, and Engineering.
5. The applicant will obtain approval of the forest conservation plan from City staff, to include an invasive species management plan and reforestation plan.
6. As part of the project's onsite mitigation plan, the applicant will perform 200 linear feet of bioengineered stream restoration, provide an additional 5.26 acres of reforestation beyond the standard requirement, provide 16.17 acres of invasive species removal/forest restoration, remove trash and debris from conservation areas, and provide 1,050 linear feet of water quality trenches to promote groundwater recharge and enhance water quality.

7. Deposition or stockpiling of materials such as excavated rock, topsoil, stumps and shrubs, grass clippings, and building materials within the stream buffer is prohibited.
8. The applicant will obtain all necessary approvals and permits from all local, State, and Federal findings agencies.

The environmental waiver conditions related to forest conservation (i.e., 1, 2, 3, 4, and 5) have been incorporated in the Final Forest Conservation Plan and/or its associated approval conditions.

WILDLIFE MANAGEMENT:

While the "Environmental Standards for Development Regulation" does not require the developer to work with a third party, the previous valuable assistance provided by the Humane Society of the United States (HSUS) in the development of the Lakeland's projects prompted the developer and the City to incorporate HSUS's expertise and experience in the early development of the plan. Experts from HSUS, Rodgers Consulting, and the City of Gaithersburg's Animal Control and Environmental Affairs Divisions, collaborated on the development and implementation of the proposed Wildlife Management Plan.

Outlines and drafts of the WMP were included in the record of SDP-05-002. The plan was conducted in accordance with the requirements of Section 31 of the "Environmental Standard for Development Regulation." One of the main goals of this plan was to minimize impacts on wildlife and habitat by incorporating wildlife considerations early in the development review and project management process. The plan incorporates a direct hands-on approach through different phases of the development process, including: surveys, sweeps and relocation, habitat monitoring and disturbance, construction contractor education, and homeowner education. Strategically, the approach of the WMP involves:

1. Displacing, to the extent feasible, most medium to large size mammals to adjacent and nearby protected habitats;
2. Moving smaller animals that are unable to flee from earth-moving equipment to safe and nearby areas;
3. Disturbing habitat in February with the objective of displacing animals from the disturbance zones to adjacent safe habitats in time to give birth and raise their young in the spring; and
4. Providing necessary and practical measures to minimize future conflicts between humans and wildlife.

The plan outlines seven key wildlife mitigation recommendations for implementation by the developer, including:

1. Wildlife and Wildlife Habitat Sweep, Inventory, and Minor Relocation (completed)
2. Wildlife Habitat Monitoring and Disturbance (ongoing)
3. Contractor Education (ongoing)

4. Early Forest and Habitat Removal (pending approval)
5. Stream Valley Corridor Improvements (pending approvals)
6. Homeowner Education Program (pending site development)
7. Scientific Box Turtle Study (ongoing study conducted by HSUS)

Staff believes that the Applicant has fully and satisfactorily addressed the wildlife management requirements and recommends the Planning Commission approve the Wildlife Management Plan (Ex. 4) for implementation by the applicant.

FOREST CONSERVATION:

Part of any site plan application, the Forest Conservation Plan guides the preservation of existing trees and forest and outlines how the project will meet afforestation and reforestation planting requirements. The FCP's requirements are based upon Chapter 22 of the City Code, "Trees and Forest Conservation", and the "City of Gaithersburg Tree Manual," which supplement the requirements of the State Forest Conservation Technical Manual. The approval of SDP-05-002 contained two conditions related to forest conservation:

10. Applicant must obtain approval of the preliminary Forest Conservation Plan prior to public hearing on final site plans for development.

#17. The applicant shall place all environmentally sensitive areas, as identified on the schematic development plan under a permanent conservation easement to be recorded on a plat. The applicant shall own and be responsible for maintaining all areas within the conservation easement.

The Preliminary Forest Conservation Plan (PFCP) was approved on January, 9, 2006 with the following conditions:

1. The limits of disturbance in the Forest Conservation Plan are not absolute and may be reduced by the City during final site plan review and field coordination. The applicant must work with staff to minimize clearing, grading, tree removal, impacts to the critical root zones of offsite trees, and encroachments into stream and wetland buffers.
2. Incorporate Wildlife Management Plan recommendations into the Final Forest Conservation Plan, as appropriate.
3. Develop a reforestation planting plan and phasing schedule.
4. Develop an Invasive Species Management Plan for forest conservation areas.
5. Delineate stormwater management (SWM) facilities and maintenance easements located within reforestation areas.
6. Prior to clearing in the stream valley buffer, work with the City, the U.S. Army Corps of Engineers, Washington Suburban Sanitary Commission (WSSC), and Maryland Department of the Environment during final site plan to obtain all necessary approvals and permits.
7. Develop a phasing plan for forest clearing activities.

8. For single family houses located northwest of Corridor Cities Transitway (CCT), delineate locations and details for fencing to demarcate private property from Forest Conservation Easements, City dedicated parkland, the McGown tract, and the Devlin Tract.
9. Include the 100-year floodplain, stream valley buffer, and forest conservation easements in final subdivision plats.
10. The Final Forest Conservation Plan shall include all items required in the Tree Manual's Final Forest Conservation Checklist.
11. Revise the forest conservation worksheet accordingly to address any changes made to the plan.

The Final Forest Conservation Plan was submitted on December 12, 2005. Staff has been meeting regularly with the applicant to address these conditions. The proposed Final Forest Conservation Plan has addressed conditions #2, #7, and #11 and the remaining items are addressed in the recommended Final Forest Conservation Plan approval conditions.

According to the proposed FFCP (Ex. 5), the project will satisfy forest conservation requirements (afforestation and reforestation) and environmental waiver mitigation planting requirements onsite. Rendered Exhibit 5a, titled "Vegetative Habitat Removal and Phasing," provides a comprehensive summary of forested areas to be cleared, project phasing, forest save areas, and forest to be dedicated to the City. The site currently contains approximately 76.63 acres of forest. Approximately 13.38 acres will be dedicated to the City and 24.85 will be permanently protected by a forest conservation easement. Approximately 51.99 acres is calculated on the forest conservation worksheet to be cleared; it should be noted that this figure is a conservative estimate (i.e., worst case scenario) used in the forest conservation worksheet to generate afforestation and reforestation requirements. A significant amount of clearing (16.33 acres) is required for such public improvements as the Corridor Cities Transitway (CCT), Interstate 270 Interchange, and Watkins Mill Road. Furthermore, the worksheet allocates 7.35 acres of potential clearing within the 13.38 acres parcel to be dedicated to the City. The 7.35 acres will not actually be cleared as part of this project, and in fact may never be cleared. It is merely a placeholder so that in the event that the City should decide to develop this parcel for a public use (subject to the restrictions of the Settlement Agreement), up to 7.35 acres can be impacted without requiring an amendment to this FFCP.

Exhibit 5a, "Vegetative Habitat Removal and Phasing," also provides an overview of the proposed clearing phasing schedule:

1. Phase I proposes to remove approximately 42 acres of forest and vegetation in February of 2006, pending approval of the Final Forest Conservation Plan and the Erosion and Sediment Control Plan. This area was recommended by the Wildlife Management Plan for early habitat disturbance and removal.
2. Phase II proposes to impact 3.48 acres within the stream valley buffer; pending approvals from outside permitting agencies; and
3. Phase III proposes to clear forest in the area northwest of the Corridor Cities

Transitway (CCT)). Development in this area is permitted only after the commencement of development in the urban core, as per Section 4.B.ii. of the Development Requirements incorporated in the Settlement Agreement.

Rendered Exhibit 5b, titled "Forest Retention and Reforestation Phasing," provides an overview of forest to be dedicated to the City, acres of forest saved within the stream valley buffer, and proposed reforestation phasing. As part of the mitigation requirements approved in the environmental waiver, the applicant will reforest up to 6.24 acres of area located within or adjacent to the stream valley buffer. Finally, the applicant will place 24.85 acres of forest/reforestation under a Category 1 Forest Conservation Easement for permanent protection to be owned and maintained by the commercial core. In order to properly maintain the health, quality, and aesthetics of the forest conservation easement areas and to minimize the detrimental effects of exotic invasive species, staff recommends that the applicant develop an invasive species management plan to be implemented by the property owner.

The proposed reforestation phases schedule includes:

1) Phase I: 3.74 acres within the stream valley buffer along I-270 to be reforested pending the installation of stormwater management facilities;
2) Phase II: 0.27 acres within the stream buffer, pending the installation of WSSC utility connections; and
3) Phase III: 2.23 acres within the Watkins Mill Road stream crossing, pending final grading and stabilization of the roadway.

Furthermore, there is an existing 29" Black Gum tree located by the stormwater management pond that will serve as a focal point of the project's entrance. An arborist has assessed this tree and determined that it is suitable for preservation. Staff recommends that the applicant consult an arborist for tree protection recommendations to incorporate into a tree protection plan and implemented by the applicant during the construction process.

Finally, in order to prevent future homeowners from encroaching on adjacent forested areas (i.e., future City parkland, the McGown Tract, and the Devlin Tract), staff recommends that the applicant install fencing along the rear and/or side yards of lots that border these parcels. Prior to site plan approval, staff recommends that the applicant delineate fence locations and provide fence details.

In summary, the Final Forest Conservation Plan (PI-V 050027) meets with the basic requirements of Chapter 22 of the City Code and the "City of Gaithersburg Tree Manual." The conditions of the Preliminary Forest Conservation Plan have been incorporated in the Final Forest Conservation Plan and/or the recommended approval conditions. The Applicant will continue to work with staff to fine tune any technical details prior to the approval of the final site plan.

CONCLUSION:

Staff finds the proposed Final Forest Conservation Plan (PI-V 0500027) and Wildlife Management Plan to be in compliance with Chapter 22 of the City Code, "Trees and Forest Conservation," the "City of Gaithersburg Tree Manual," and "The Environmental Standards for Development Regulation" and recommends **APPROVAL for PI-V-05-0027** with the following conditions:

1. Prior to obtaining a permit for Phase I clearing activities, the applicant shall receive approval of an erosion and sediment control plan from the Department of Public Works, Park Maintenance, and Engineering (DPWPM&E). The applicant shall include the construction sequence for clearing, grubbing, grading, construction, and stabilization activities in the erosion and sediment control plan;

2. Prior to obtaining a permit for grubbing of stumps and grading activities, the applicant shall receive final site plan approval.

3. Prior to clearing Phase II (i.e., stream valley buffer), the applicant shall receive all necessary approvals and permits from the City, the U.S. Army Corps of Engineers, Washington Suburban Sanitary Commission (WSSC), and Maryland Department of the Environment;

4. Prior to clearing Phase III (i.e., area northwest of the Corridor Cities Transitway (CCT)), the City Attorney must certify that the applicant has satisfied the associated requirements of Section 4.B.ii. of the Development Requirements incorporated in the Settlement Agreement;

5. The limits of disturbance are not absolute and may be reduced by staff during final site plan review and field coordination. The applicant shall work with staff to prevent impacts to the critical roots zones of offsite trees, to save additional onsite specimen trees located near the limits of disturbance (LOD), and to minimize clearing, grading, tree removal, and encroachments into stream and wetland buffers; when determined to be beneficial and feasible;

6. Prior to obtaining final site plan approval, the applicant shall develop an Invasive Species Management Plan for forest conservation easement areas to minimize the detrimental effects of invasive species, including but not limited to *Microstegium vimineum*, *Smilax rotundifolia*, *Polygonum sagittatum, Rosa multiflora*, *Lonicera spp.*, and *Celastrus orbiculatus*;

7. For single family houses located in Phase III (i.e., area northwest of the Corridor Cities Transitway (CCT)), the applicant shall delineate locations and details for fencing to demarcate private property from dedicated City parkland, the McGown tract, and the Devlin Tract, to be approved by staff prior to final site plan approval;

8. The final forest conservation plan shall delineate stormwater management (SWM) facilities and their associated maintenance easements that are located within reforestation areas;

9. Prior to the issuance of building permits, the applicant shall record the forest conservation easements in the Land Records of Montgomery County.

10. Prior to the issuance of building permits, the applicant shall submit a record plat, for staff review and approval, which shall contain forest conservation easements, the 100-year floodplain, and the stream valley buffer;

11. Prior to the approval of final site plan, the applicant shall include the arborist's assessment of the 29" Black Gum (*Nyssa sylvatica*) and a tree protection and maintenance plan on the final forest conservation plan;

12. Prior to the issuance of the Phase I clearing permit, the applicant shall include the following information on the final forest conservation plan: "City of Gaithersburg Tree Manual" standard forest conservation notes, forest conservation inspection procedure notes, the standard forest conservation maintenance and management agreement, and standard details for tree protection fencing;

13. Prior to the approval of final site plan, the applicant shall revise the reforestation planting schedules to: a) reflect a larger diversity of native plant species that are suited to specific site conditions; and b) satisfy the reforestation planting density requirements (e.g., 100 2" to 2 " cal. shade trees per acre; 250 1" to 1 " cal. ornamental or other deciduous trees per acre; 100 8' tall evergreen trees per acre; and understory shrubs planted at one-third the rate of trees); and

14. At the time of site plan approval of SP-05-0013, the applicant shall update the Final Forest Conservation Plan and Wildlife Management to reflect necessary changes.

REVISION	DATE	REVISION	DATE	REVISION	DATE	REVISION	DATE

Owner/Developer:
BP Realty Investments, LLC

10000 Falls Road, Suite 100
Potomac, Maryland 20854
Ph.: (301) 299-2099
Fax: (301) 299-2053
Contact: Mr. Peter J. Henry

Aerial Map
(Source: Aerial Express, 2004)

RODGERS CONSULTING
Enhancing the value of land assets

Rodgers Consulting, Inc.
19847 Century Blvd., Suite 200
Germantown, MD 20874
301.948.4700
301.948.6256 (fax)
301.253.8609
www.rodgers.com

RELEASE FOR

EXHIBIT 1
PI-V050027 01-18-06
PENGAD-Bayonne, N. J.

P&CA PLANNING AND CODE ADMINISTRATION Gaithersburg

City of Gaithersburg • 31 South Summit Avenue • Gaithersburg, Maryland 20877 • Telephone: 301-258-6330 • Fax: 301-258-6336
plancode@ci.gaithersburg.md.us • www.ci.gaithersburg.md.us

FOREST CONSERVATION PLAN APPLICATION

In accordance with Chapter 22 of the City Code

Submit a copy of this form with the Final Forest Conservation Plan and second copy with the permit application. All information requested in this application must be answered completely.

Application Number	P1-V050027
Date Received	12-16-2005
Amount of Fee	$1,300
Date Fee Received	
In-lieu fees collected	
In-lieu fees expended	

PROJECT NAME Watkins Mill Town Center

LOCATION

PARCEL NUMBER P880, P033, P211 PROPERTY TAX ID 008836698, 0818234, 0082177 ZONE

MARYLAND SUBWATERSHED # ☐ MUDDY BRANCH # 02140202 ☑ GREAT SENECA # 02140208 ☐ OTHER #

APPLICANT BP Realty Investments TELEPHONE 301-299-2033

ADDRESS 10000 Falls Rd #100 Rockville, MD 20854

CONTACT PERSON Peter J. Henry TELEPHONE 301-299-2033

OWNER BP Realty Investments TELEPHONE 301-299-2033

ADDRESS 10000 Falls Rd Suite #100 Rockville, MD 20854

FOREST CONSERVATION AND ENVIRONMENTAL INFORMATION. ***(Please specify acres or square feet)***

Proposed land use Mixed Use

Total tract area 126.09 (0.89 ac offsite)

Existing sensitive area 28.01 (s.v.b)

Total proposed green space area 30%

Existing forest area 76.36 ac(16.1 ac master plan rw)

Reforestation required 0

On-site reforestation 2.23 ac

Off site reforestion 0

Off-site reforestion location:

MD Grid N N/A

MD Grid E N/A

Total area disturbed 93.43 ac

Total sensitive area disturbed 8.3 ac (3.66 masterplan)

% Required green space 30%

Forest area cleared

Afforestation required 0

On-site afforestation 3.74 ac

Off-site afforestion 0

Off-site afforestion location:

MD Grid N N/A

MD Grid E N/A

Total area under conservation easements 24.58 ac (excluding City Dediction)

Sensitive area under conservation easements 22.12 ac (including 0.93 svb at City Dediction)

Stream buffer established/restored 0 ft length ft width

Stream buffer conserved 1500' / 200' ft length 10' / 10' ft width

continued on reverse side

EXHIBIT 2 P1-V050027 12-8-10

SUBMISSION REQUIREMENTS

1. ☐ APPROVED FOREST STAND DELINEATION
2. ☒ FOREST CONSERVATION WORKSHEET
3. ☒ FOREST CONSERVATION MAP (must be the same scale as site plan or grading plan)
   - ☒ Forest conservation areas, including a clear graphic indicating the location and acreage of forest conservation areas and the location, type and size of any specimen trees
   - ☒ Reforestation areas and acreages
   - ☒ Afforestation areas and acreages
   - ☒ Location of every specimen tree as shown on the FSD
   - ☒ Tree protective devices with details
   - ☒ Limit of disturbance, including the critical root zones for all trees to be saved greater than 12-inch DBH that are impacted by the limit of disturbance line and root pruning lines for all critical root zones that are encroached upon by the limit of disturbance line
   - ☐ Stockpile areas
   - ☐ Construction timetable/sequence
   - ☒ Forest conservation signage, including the locations of signs identifying all forest conservation, reforestation, and specimen trees and details of sign types
   - ☒ Required notes (see *Tree Manual*)
   - ☒ Location of all utilities and special utility installation procedures.
   - ☐ Location of all sediment control devices with details as needed
   - ☐ Specifications/details of temporary and permanent devices
   - ☐ Special paving areas with details as needed
   - ☒ Location of retaining walls with details as needed
   - ☒ Summary table of proposed action for individual trees
   - ☒ Any other information required by the City of Gaithersburg
   - ☒ Include note: ***Invasive species and refuse will be reasonably removed from forest conservation areas and stream valley buffers prior to planting.***

4. ☐ REFORESTATION/AFFORESTATION PLAN
   - ☒ Narrative
   - ☒ Plant stock table
   - ☒ Planting plan
   - ☐ Binding 2 year management plan agreement
   - ☒ Forest Conservation Easement

I have read and complied with the submission requirements and affirm that all statements contained herein are true and correct.

Applicants Signature Gary F. Unterberg Date 12/7/05

Gary F. Unterberg, agent
Rodgers Consulting, Inc.

PI-V050027 PCP Watkins Mill Town Ctr.

ANTONIUS H & J DASSEN
11610 GAME PRESERVE RD
GAITHERSBURG MD 20878

ARE-2 WEST WATKINS LLC
C/O STE 250
135 NORTH LOS ROBLES AVE
PASADENA CA 91101

ARE-30 WEST WATKINS LLC
C/O STE 250
135 N LOS ROBLES AVE STE 250
PASADENA CA 91101

ARE-50 W WATKINS MILL LLC
C/O DELOITTE & TOUCHE LLP
2235 FARADAY AVE #O
CARLSBAD CA 92008

ARE-METROPOLITAN GROVE I LLC
C/O DELOITTE & TOUCHE LLP
2235 FARADAY AVE #O
CARLSBAD CA 92008

AUGUSTA B MCGOWN
4890 CHEVY CHASE BLVD
CHEVY CHASE MD 20815

BENNINGTON URBAN GROWTH COMMITTEE
BENNINGTON COMMUNITY ASSOCIATION
29 GOODPORT LN
GAITHERSBURG MD 20878

BETTY BTRUST CASEY
800 S FREDERICK AVE STE 100
GAITHERSBURG MD 20877

CONRAD L & I A MILLS
14430 DUFIEF MILL RD
GAITHERSBURG MD 20878

CSXTRUSTANSPORTATION INC
500 WATER ST
JACKSONVILLE FL 32202

DANIEL DANIEL & DANIEL
5500 MACARTHUR BLVD N W
WASHINGTON DC 20016

DARRYL G & C R HAGANS
10900 ATWELL AVE
BOWIE MD 20720

DOUGLAS CARTER
DAVIS CARTER SCOTT ARCHS
1676 INTERNATIONAL DR #500
MCLEAN VA 22102

ESPERANCE HOMES INC
610 E DIAMOND AVE # 100
GAITHERSBURG MD 20877

FIRST FEDERAL CORPORATION
75 W WATKINS MILL RD
GAITHERSBURG MD 20878

GARY UNTERBERG
RODGERS CONSULTING INC
19847 CENTURY BLVD SUITE 200
GAITHERSBURG MD 20877

GENE LOGIC INC
50 W WATKINS MILL RD
GAITHERSBURG MD 20878

GEORGE & L STEVENSON
8114 BRINK RD
GAITHERSBURG MD 20882

HALCYON ASSOCIATES
5500 MACARTHUR BLVD NW
WASHINGTON DC 20016

INC RSI LEASING
1 METROPOLITAN GROVE RD
GAITHERSBURG MD 20878

JILL C HUDSON
14440 DUFIEF MILL RD
GAITHERSBURG MD 20878

JOSEPH A WOLFORD
5708 STILLWELL RD
ROCKVILLE MD 20851

KEVIN HOWARD
7510 BRINK RD
GAITHERSBURG MD 20882

MICHAEL BERCELI
11510 GAME PRESERVE RD
GAITHERSBURG MD 20878

MONTGOMERY COUNTY
EOB 101 MONROE ST
ROCKVILLE MD 20850

MOR BEN LLC
7061 COLUMBIA GATEWAY DR
COLUMBIA MD 21046

NATIONSBANK
C/O EDWARDS L BURNS RES
PO BOX 267
WASHINGTON DC 20044

NEAL & BETTY B HAMBLETON
34 SUSSEX LN
HILTON HEAD ISLAND SC 29926

OCCUPANT
60 OAK SHADE RD
GAITHERSBURG MD 20878

OCCUPANT
35 HONEY BROOK LA
GAITHERSBURG MD 20878

EXHIBIT 3
PI-V050027 01-10-06

PC Next Agenda for 18-Jan-06 M

OCCUPANT
37 HONEY BROOK LA
GAITHERSBURG MD 20878

OCCUPANT
17 HONEY BROOK LA
GAITHERSBURG MD 20878

OCCUPANT
14 GOODPORT LANE
GAITHERSBURG MD 20878

OCCUPANT
29 GOODPORT CT
GAITHERSBURG MD 20878

OCCUPANT
15 METROPOLITAN GROVE RD
GAITHERSBURG MD 20878

OCCUPANT
65 W WATKINS MILL RD
GAITHERSBURG MD 20878

OCCUPANT
1 METROPOLITAN CT
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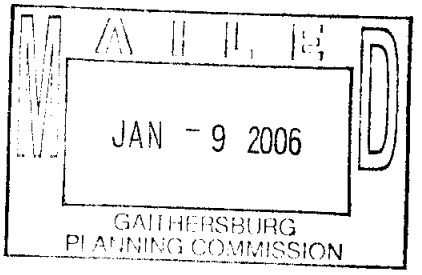

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CONSULTING

Enhancing the value of land assets

Casey West – Metropolitan Grove

Wildlife Management and Sensitivity Program

Prepared For:

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Section 1.0 Executive Summary

The Casey West – Metropolitan Grove property *('the site')* is approximately 125 acres located within the City of Gaithersburg. The current general use of the site is as an open fallow field and hardwood forests. The proposed land use includes a mixed-use town center, residential (single family detached, attached, and multi-family units), and forested stream valleys and parkland.

This report summarizes the wildlife protection, minimization, and mitigation efforts completed thus far and outlines recommendations for future efforts. Thus far, the wildlife protection, minimization and mitigation efforts have included the following efforts:

- Over forty (40) hours of planning efforts between the developer's representatives, the developer's consultants, Gaithersburg staff, and representatives of the Humane Society of the United States (HSUS)
- More than ten (10) site meetings consisting of the developer's construction superintendent and consultants, HSUS experts, and Gaithersburg staff
- At least two (2) meetings on site with the HSUS experts, the developer's construction superintendent, contractor, consultants and Gaithersburg staff.
- Consensus among the developer, Gaithersburg, and HSUS experts on a wildlife management and sensitivity plan, summarized and outlined herein
- Two (2) "Wildlife Sweeps" consisting of more than fifty (50) volunteers, HSUS representatives, developer representatives and consultants and Gaithersburg staff
- Capture and relocation of at least 31 box-turtles *Terrapene carolina*, 3 garter snakes *Thamnosis sirtalis*, 18 salamanders/newts *Ambystoma spp.*, 7 toads *Bufo spp.* and 1 leopard frog *Rana sphenocephala*
- Construction of a 'Turtle Pen' on the nearby HSUS property for over wintering the captured Turtles
- Identification and mapping of more than fifteen (15) potentially active wildlife dens/burrows and the development of a plan to minimize impacts to wildlife utilizing these areas
- Development of a scientific eastern box turtle Relocation Study to be conducted by nationally recognized box-turtle experts from the HSUS

Future efforts related to wildlife protection, minimization and mitigation include, at a minimum, include the following:

- Contractor education efforts to recognize active wildlife habitat areas and undertake sensitive construction activities in and near those areas, such as bilingual signage and injured wildlife emergency contact information
- Removal of forested habitat during the least sensitive time of the year for wildlife (February-March) so as to minimize impact to wildlife activity patterns
- Development and implementation of a habitat enhancement program, including stream valley forage and habitat enhancements
- Education program for future residents of the community to encourage a harmonious co-existence between wildlife and humans

The approach of this wildlife management program has been and continues to be to generally displace, to the extent feasible, most medium - large sized mammals to adjacent and

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nearby protected habitats, potentially through trapping and relocation if necessary; to move smaller animals that are unable to flee from earth-moving equipment to safe and nearby areas; to undertake forest removal during the least sensitive time of the year and to provide necessary and practical measures to minimize future conflicts between humans and wildlife.

In conjunction with the planning and implementation process for this project, this Wildlife Management and Sensitivity Plan has been prepared to address wildlife management and mitigation as required by the City of Gaithersburg under Section 31 of the Environmental Standards for Development. Specific attention to these Standards is addressed in the Appendix of this report. This project proposes to exceed the spirit and letter of these regulations by undertaking the efforts outlined herein. This report summarizes the wildlife protection, minimization, and mitigation efforts completed and outlines future efforts to help ensure a healthy co-existence between natural wildlife and future development activity and ultimately residents of this community.

Section 2.0 Site and Project Description

This site is approximately 125 acres located within the City of Gaithersburg. The site is bordered to the north-east by Interstate 270, to the north and north-west by the primarily forested McGowan tract and individual properties, to the south-west by the CSX railroad tracks, and to the southeast-east by various private properties. Beyond the immediate boundaries of the site, industrial and residential development occur to the south and west, Great Seneca Park and larger lot residential properties are located to the north, and industrial development occurs to the south and beyond I-270.

This site is one of the few sizable undeveloped properties in the City of Gaithersburg. With close proximity to Washington DC and with major employers located nearby, this site is situated within a relatively dense urban-suburban area.

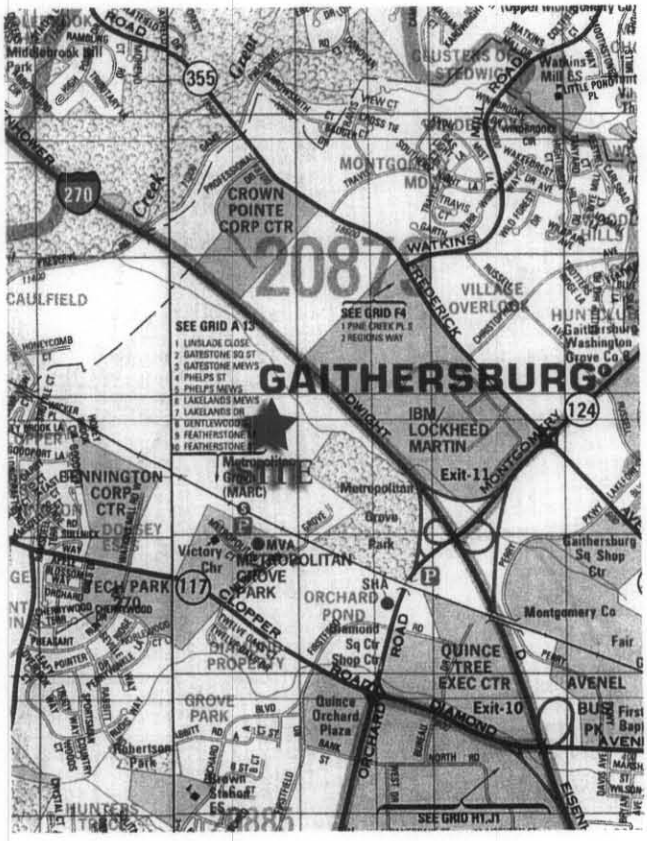

Figure 1: Project location (ADC Copyright Permit # 20508165)

The current use of the site is open fallow field and hardwood forest with rolling terrain generally falling to the north and the majority of the site containing slopes ranging from 3-10%. The open meadow areas, which account for approximately one-half of the site, were, up until a few years ago, employed in a rotation of crops. Remaining round-bales can still be found along the edges of the meadows. Beyond the meadow areas, the forest extends and conjoins off-site forest. The forests on site are comprised of Mature Oak/Poplar forest types transitioning to Bottomland forest types along the stream valleys. The site contains several tributaries to Great

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Seneca Creek - the mainstem of which is located approximately 2,000 feet north of the site. A perennial tributary flows northerly along the north-eastern boundary of the project receiving flow from several additional first order intermittent streams flowing from the site.

Figure 2: Aerial photograph of site. Lighter brown indicates open meadow/field while the darker brown is indicative of existing forest. I-270 is located along the north-eastern boundary while the CSX tracks border the south-south-western boundary. Located immediately beyond the limits of this property to the south-east is Quince Orchard Blvd. Located to the north but beyond the limits of this image is Seneca Park.

The development activity proposed is for a mixed-use town center and a residential community that is based on a transit-oriented design related to the proximity of a transit rail and proposed future intersection of Watkins Mill Road / I-270. The majority of the open meadow area is proposed for the development of the town center and a majority of the residential units. Approximately 44 acres of the existing forest are proposed to be removed to construct Watkins Mill Road, a future north-south transit-way referred to as the Corridor Cities Transitway (CCT), and residential units. Approximately 32 acres of existing forest is proposed to be retained, of which, 17 acres are within the stream valley buffer. Figure 3 shows the ultimate proposed use of the site.

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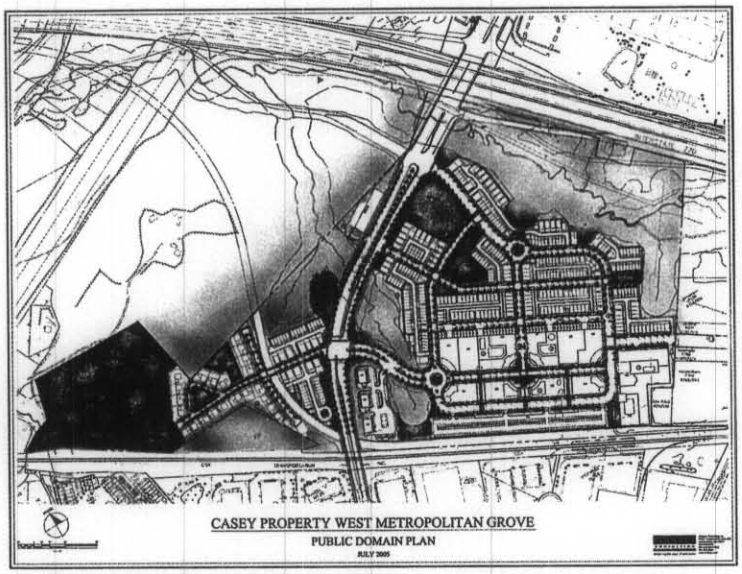

Figure 3: Proposed project rendering (subject to revision).

Section 3.0 Recommendations

These recommendations are based upon a mass grading start date to occur during the spring of 2006. The following recommendations rely upon the timeframe indicated to allow for optimal effect.

Part 1: Wildlife & Wildlife Primary Use Areas Sweep, Inventory, and Minor Relocation

During September 2005, a 'sweep' of the area of the property proposed to be disturbed should be conducted with the following objectives:

- To search for eastern box turtles and any other easily capturable animals and to move them to an area that is not proposed to be disturbed
- To inventory (flag, identify, locate) wildlife dens, nests, and burrows within the area proposed to be disturbed on the property
- To survey all wildlife species observed within the area of the property proposed to be disturbed
- To prepare a 'Turtle Pen' to be located on the HSUS property to monitor and maintain the turtles and turtle habitat through the winter

Part 2: Wildlife Primary Use Area Monitoring and Disturbance

Upon completion of Part 1 and leading up to the initiation of Part 4, review each of the inventoried habitat sites identified during Part 1 at least one (1) time per month. During each visit at each habitat the following measures should be undertaken:

- Determine whether the habitat is active
- If habitat is inactive, destroy or disturb the habitat sufficient to discourage or prevent future occupation

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- If the habitat is active, disturb the habitat to encourage the animals to vacate. Depending upon the number and types of active habitats, the frequency of habitat harassments may need to be increased beyond once per month
- Maintain a matrix spreadsheet of the activity level and actions taken for each habitat site

Part 3: Contractor Education

Prior to or in conjunction with the pre-construction meeting, a site meeting shall be held with the site developer and contractors to educate the site workers on the following topics:

- The location of active habitats that require special attention
- What to do if wildlife are encountered
- Contact information for injured animals

Additional educational elements may include:

- Posted signs upon entering the project acknowledging a "Wildlife Sensitive Project"
- Signs with bright ribbon around the active habitat areas

Part 4: Early Forest & Habitat Removal

Since mass grading is scheduled to begin in the Spring of 2006, when wildlife are most active and susceptible to adverse impact, the vegetated areas within the area to be disturbed should be removed. The removal of vegetation (trees, shrubs, brush, tall grasses, etc) should occur during the months of February and March, between the time when animals come out of dormancy but before they give birth to young. The purpose of the vegetation removal is to eliminate the possibility of wildlife inhabitation and future conflicts when mass grading occurs

.

Part 5: Stream Valley Corridor Habitat Improvements

It is recommended that the stream valley corridor parallel to I-270 be enhanced to improve the wildlife habitat value of the area. The following recommendations should be incorporated into a Stream Valley Enhancement Plan and implemented as early as feasible.

- Removal of invasive plants
- Reforestation with native species
- Wildflower seeding
- Birdhouse(s)
- Stream restoration

Part 6: Homeowner Education Program

In order to enhance the understanding of wildlife and to minimize future human-wildlife conflicts, an educational program is recommended for residents and users of the community. The following outreach sources are suggested:

- Regular programs for residents coordinated by wildlife agency(s)
- Literature available as part of settlement materials
- Interpretive signage along natural areas

The recommended curriculum of the educational program is as follows:

- The species of wildlife found on or near their property
- Bird and wildlife identification

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- Wildlife behavior
- Landscaping measures to encourage and/or discourage different species of wildlife

Part 7: Scientific Study: The Effects on Box Turtles from Relocation (By the HSUS)

- The purpose will be to study the effects of relocation on the captured box turtle population from this project
- The Casey West developer shall support this project by developing a 'turtle pen' constructed to specific specifications on the HSUS property

Section 4.0 Wildlife Protection, Minimization, and Mitigation Efforts

4.1 Wildlife Protection, Minimization, and Mitigation Planning

Previous experience with wildlife management for the Lakelands community in the City of Gaithersburg indicated that early planning efforts are essential to protect and minimize impacts to wildlife. While the Lakelands example provides a paradigm for protecting, minimizing, and mitigating wildlife impacts when construction and wildlife schedules may be conflictive, this project recognizes that one of the primary components of protecting wildlife is to understand a site's wildlife activity schedule and to coordinate construction activity to the extent feasible.

In order that these two activity schedules are harmoniously blended so as to minimize impacts to both the construction schedule and the wildlife schedule, a team of experts were assembled including most of the parties involved with the Lakelands wildlife management experience. Experts from the HSUS, Rodgers Consulting, and the City of Gaithersburg, including Animal Control, collaborated to develop a strategy to minimize wildlife impacts.

Over forty (40) hours of office and field meetings took place to thoroughly understand the types and habits of wildlife on this site and to devise a strategy for minimizing impact. Unlike the Lakelands site, which was bordered by major roadways and contained significantly more-active wildlife habitat, the Casey West site is contiguous with large parcels and lots and, most significantly, the 6,000 acre Seneca Creek greenway. The following figure shows the project's relation to this open space network.

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Figure 4: Casey West property as it relates to the open space network to the northwest

The Casey West site is very much a terminus location for wildlife with wildlife moving in a generally northwest – southeast fashion between and parallel I-270 and the CSX rail. Steep side slopes and an 8' fence generally limit movement of large mammals north onto I-270 and residential and industrial development west of the CSX rail generally discourages large mammal movement in a westerly fashion. Approximately 1,500' south east of the site's southeastern boundary, the Quince Orchard Road / I-270 interchange limits large mammal movement.

Due to the property's relation and access to open space coupled with natural tendencies to follow the path of least resistance and the ability to flee, the team determined that displacement of large mammals, such as white tailed deer *Odocoileus virginianus*, would occur naturally as construction activity commences. As such, efforts were not necessarily focused on managing large mammals.

The team determined that efforts should be focused on addressing the minimization of impacts to animals that are unable to flee construction equipment and are actively present and inhabiting the site, namely woodchucks *Marmota monax*, foxes *Vulpes vulpes*, and box turtles. In addition, dormancy, reproduction, and fledgling development timetables were considered for Woodchucks and Foxes with a concern related to the impact of construction activity on these timetables.

4.2 Woodchuck and Fox Habits, Timetables, and Management Strategy

Woodchucks generally become dormant in late-October and become active once the temperature starts to rise, usually in mid-February, though woodchucks will certainly emerge temporarily between this time during a warm period. Woodchucks spend their dormancy in burrows in the ground. Upon completion of the dormant season, woodchucks begin reproduction with an approximately 30 day gestation period. Around the end of March, an

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annual litter of two to nine young are naked and blind. At six – eight weeks the young will may begin leaving the burrow and become increasingly self –sufficient.

For woodchucks the time from which the young are born, around the end of March, until six – eight weeks following birth, is the most sensitive time period.

Foxes do not hibernate and reproduction is limited to a short (one – six day) period in January – February. Foxes have a gestation period of approximately 50 days at which time they give birth to one – ten offspring (pups). The pups will leave the den around four – five weeks.

For foxes, the most sensitive time period is between March/April until June, when the young pups are relatively defenseless.

Considering the timetables of these two species, it is apparent that the most critical time period is from late-March through June. With mass grading operations scheduled to begin during this time, there would be an increased concern on the impact to woodchucks and foxes, particularly to the susceptible young.

To offset this potential impact, the following strategies were recommended:

- Identify and map woodchuck and fox primary use areas, such as burrows and dens, that appear to be active
- Reduce the habitat value of potential woodchuck and fox habitat on site, via
    - Closing inactive burrows so they could not become occupied on the future
    - Removing 'protective' forest and vegetative cover during the least sensitive timeframe (February – March)

4.3 Wildlife Sweeps: Capture and relocate small animals; Identify and map active habitats

As mentioned previously, concern was raised for animals unable to effectively flee construction machinery, namely box turtles. Box turtles are very susceptible to ambient air temperature and will burrow under leaves as the air temperature begins to drop. Considering that forest removal is proposed for February and March, it is highly likely that box turtles will remain in a dormant state buried beneath leaves and debris when construction begins. The team determined that it would be necessary to capture and relocate as many box turtles as possible prior to dormancy to avoid future impacts during forest removal.

Two (2) wildlife sweeps were conducted in September and October consisting of over fifty (50) individuals from the HSUS, the City of Gaithersburg, and the developer's representatives and consultants. During those two sweeps as well as additional sweeps by individuals, 31 box-turtles, 3 garter snakes, 18 salamanders/newts, 7 toads and 1 leopard frog were captured and relocated. Additionally, more than fifteen (15) potentially active wildlife use areas, such as dens and burrows, were identified and mapped and more than sixty (60) inactive wildlife habitats were closed or made uninhabitable.

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Appendix A:

City of Gaithersburg Environmental Standards for Development, Section 31: Existing Wildlife

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§ 31. EXISTING WILDLIFE

Where development is expected to impact wildlife or their habitats on a site, wildlife management recommendations shall be incorporated into the site development package as a wildlife management report or plan. The wildlife management plan shall address:

a. Habitat analysis and forage availability.

b. Vegetation, bird, large and small animal surveys.

c. Identification of potentially problematic species.

d. Options for managing potentially problematic species.

e. Short and long-term success of these options in managing the potentially problematic species.

f. Human-wildlife interactions before development, particularly with medium to large sized mammals.

g. Changes in the edge-to-area ratio proposed by the development plan (see Appendix A).

h. Identification on how the development will minimize "pinch-points" in wildlife movement corridors.

i. Identification of linkages for isolated wildlife habitat areas.

j. Landscape design and natural resource management practices that would provide habitat enhancement, if appropriate.

k. Schedule for grading activities so as to have minimal disruption on wildlife. Preferably, the schedule shall show blackout dates indicating breeding, nesting, or hibernation periods when grading should not occur. Grading activities will be permitted during the blackout dates, provided grading minimizes wildlife disruptions. The wildlife management plan shall identify time frames when grading activities has the least impact on wildlife.

l. Recommendations on which is the most appropriate wildlife techniques considering existing wildlife populations, habitat, linkages to other wildlife corridors, public safety, and public concerns.

After the receipt of the wildlife management plan from the applicant, the City Staff will make recommendations to the Planning Commission for the appropriate wildlife management techniques to be implemented by the applicant. If necessary, the City may consult with other public agencies, outside organizations, or consultants prior to making a decision. Also, City staff may request additional information from the applicant before making a recommendation to the Planning Commission.

§ 32. PRESERVATION OF CULTURAL RESOURCES

The existence of heritage resources on a site shall be referred to the City's Historic Preservation Advisory Committee for a recommendation as to their historic and cultural significance to the area. Examples include dwellings, outbuildings, trees, cemeteries, neolithic and archaic Indian sites, monuments, markers, boundary posts, toll roads, fords, mills, slave quarters, wells, graves, archeological, etc.

§ 33. STREAM QUALITY ENHANCEMENT

In cases where an existing stream area near the site is being impacted by run-off due to development, or in cases where an existing stream on the site is degraded and experiencing erosion, bank failure, undercutting of adjacent trees or other problems related to the integrity of the stream channel, a plan addressing bioengineering or stream stabilization must be submitted for Planning Commission approval. This requirement will be applied on a case-by-case basis to correct existing stream problems.

§ 34. NOISE ABATEMENT

There are two basic noise related conditions that are of concern in the development review process. The first is a noise condition emanating from a proposed use on a single parcel, or an individual source. This condition is currently controlled by laws enacted at the federal, state and local level. Noise emanating from a proposed use under review by the Planning Commission must adhere to the latest Noise Ordinance in effect at the time of Planning Commission review. (A copy can be obtained from the Planning and Code Administration.)

The second is a noise condition emanating from existing public or quasi-public facilities such as highways, arterial roads, and railroads. Controlling the impact from those sources of noise pollution remains largely uncontrolled at present, in spite of their widespread impacts. The purpose of this section of the standards is to

Appendix B:
Compliance with the *City of Gaithersburg Environmental Standards for Development, Section 31: Existing Wildlife*

a. Habitat Analysis and Forage Availability Assessment

As part of the initial sweep, the professionals and volunteers will identify and flag wildlife habitats such as burrows, nests, and/or dens. The locations of the habitats will be surveyed and determined to either be active or inactive.

Leading up to the initial site clearing activities, the habitats will be monitored at least once per month by developer representatives with assistance by HSUS professionals to determine the level of activity and, ultimately, whether the habitats are presently occupied upon the start of construction.

A critical component of this Wildlife Management Plan is to completely destroy wildlife habitats during the months of February and March, provided they are not occupied, when animals have come out of dormancy / hibernation and before they give birth in late March and April. As such, upon the start of forest clearing in early February, the burrows will be assessed to determine the level of protection, if any, that is needed. Those habitats / burrows that are occupied will be left undisturbed while the forest and vegetation removal occurs or until such time as the animal vacates the habitat. Those habitats / burrows that are not occupied will be destroyed and cleared of surrounding vegetation to discourage possible future occupation.

b. Vegetation, Bird, Large and Small Animal Surveys

Two wildlife sweeps were conducted on the property consisting of more than 50 individuals during September and October 2005. These surveys confirmed that the site contains a typical array of urban and suburban species associated with mixed hardwood forests, meadow and hedgerow environments. The list below summarizes the wildlife species observed on site.

White-tailed deer
Red Fox
Eastern Chipmunk *Tamias striatus*
Eastern Gray Squirrel *Sciurus carolinensis*
Eastern Cottontail *Sylvilagus floridanus*
Raccoon *Procyon lotor*
Opossum *Didelphis viginiana*
Woodchuck
Small Mammals
Sparrows *Melospize melodia*
Mourning Dove *Zanaida macroura*
Downy woodpecker *Picoides pubecens*
King Fisher Ceryle alcyon
Red Tailed Hawk *Buteo*

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jamaicensis
Cardinal *Cardinalis cardinalis*
Blue Jay *Cyanocitta cristata*
Black Capped Chickadee *Poecile attricapilla*
Common Crow *Corvus brachyrhynchos*
American Robin *Turdus migratorius*
Black Snake *Elaphe obsoleta*
Garter Snake
Eastern Box Turtle
Red-Backed Salamander
Leopard Frog

c. Identification of Potentially Problematic and Sensitive Species

In cooperation with the Humane Society of the United States (HSUS), the eastern box turtle has been identified as a sensitive species. Box turtles have a limited ability to flee from earth-moving equipment, are easily identifiable and can be captured fairly easy. Given the amount of hardwood forest and grassy meadow, significant habitat currently exists for box turtles.

Other species of concern include white tailed deer, woodchucks, and foxes. These species are not considered problematic given the fairly unrestricted access to adjacent and contiguous blocks of protected lands and the ease at which these mammals can naturally be displaced.

Although not considered problematic, particular attention should be given to active or potentially-active woodchuck burrows and fox dens/burrow, depending upon the time of year construction commences.

d. Options for Managing Potentially Problematic/Sensitive Species, Woodchucks and Foxes

Box-Turtles

Nothing

The extent of the box turtle population within the limits of development on the Casey West property is not entirely known. It can be reasonably concluded that at least some Box Turtles would be located within the development of the property.

Considering the slow-moving nature of box turtles and the fairly small home range, it is unlikely that box turtles within the limits of disturbance would survive development activity.

Box turtles are easily identifiable and capturable animals. Considering the ease by which these animals can be found, captured, and moved beyond the limits of disturbance, the prospect of doing nothing is not a viable option.

Protection / Relocation

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Box turtles are easily identifiable and capturable animals. However, there is little research on the effects of relocation to the box turtle individuals. Box turtles utilize magnetic forces and solar location for finding their way to prior dormancy sites. The extent to which relocation adversely impacts the individual is not entirely known (Hadidian, Hagood, 2005).

It is important to note that turtles are susceptible to dormancy during the early fall. When turtles go into dormancy they will burrow beneath leaf or grass litter, often completely hidden from the observer's view. Any efforts to find box turtles would need to consider the time of year and the recent weather conditions.

Considering the amount of open space preserved on this property, within stream valleys or upland forest proposed to be dedicated to the City of Gaithersburg, there remains considerable box turtle habitat within a close proximity to the disturbed areas.

Since the prospect of 'doing nothing' is not a viable option considering the ease by which turtles can be captured and the availability of protected land in close proximity, moving turtles from areas proposed to be disturbed to protected areas is the most feasible and practicable alternative. Since tree removal and grubbing is proposed during the winter, the location of turtles should ideally be conducted as early in the fall or late in the summer as possible.

Since turtles tend to return to former dormancy sites, the turtles would somehow need to be restricted from 'reentering' the area proposed to be disturbed. This 'holding' area should provide similar habitat with sufficient leaf litter for the turtles to take up dormancy.

Foxes, Woodchucks
Nothing

While numerous ground burrows have been surveyed on the subject property, the potential impact to active burrows, and thus the animal, can not be determined without further observation and monitoring of the burrows in conjunction with a defined construction activity schedule.

Woodchucks are generally dormant from late-October through mid-February and become active once the temperature starts to rise. Upon completion of the dormant season, woodchucks begin reproduction with an approximately 30 day gestation period. Around the end of March, an annual litter of two to nine young are naked and blind. At six – eight weeks the young will may begin leaving the burrow and become increasingly self –sufficient.

For woodchucks the time from which the young are born around the end of March until six – eight weeks following birth, is the most sensitive time period. Any activity that would disturb the defenseless young in their burrows during this time should be discouraged.

Foxes do not hibernate and reproduction is limited to a short (one – six day) period in January – February. Foxes have a gestation period of approximately 50 days at which time they give birth to one – ten offspring (pups). The pups will leave the den around four – five weeks.

For foxes, the most sensitive time period is between March/April until June, when the young pups are relatively defenseless.

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Habitat Monitoring and Active Habitat Protection

Considering the abundant ground burrows found on site, it is reasonable to expect that woodchucks would attempt / desire to hibernate and both would attempt / desire to raise young on the site.

This proposal would include actively disturbing on-site ground burrows prior to dormancy/hibernation to discourage on-site hibernation during the winter months and to determine which burrows contain hibernating woodchucks. The area immediately surrounding the burrow should be cleared of vegetation such that when the woodchuck awakens from dormancy, it is in an 'exposed' area and flees prior to beginning reproduction.

Upon confirmation that the burrow has been vacated, the burrow should be closed so that it can not be utilized by any other or the same animal in the future.

e. Short and Long-Term Success of Management Options for Problematic Species

As mentioned previously, the success of relocating eastern box turtles is not entirely understood. By utilizing the earth's magnetic properties and solar position, box turtles tend to return to previous year's dormancy sites. The impact on the eastern box turtle individual by relocating the animal and restricting its dormancy location is unknown (Hadidian, Hagood, 2005).

However, similar habitat exists elsewhere beyond the proposed limits of disturbance that the eastern box turtles may find acceptable for dormancy purposes. A site to be located on the Humane Society of America's property in close vicinity to the Casey West property shall be utilized to over-winter the Turtles. During the winter, experts from the Humane Society can monitor the health and habitat of the Turtles and make any necessary adjustments.

Considering the timeframe for mass grading to commence (March-April), the mammal burrows should be actively managed to encourage the animals to safely vacate prior to initiating reproduction. This should include the removal of vegetation and forest surrounding the burrow / den.

Since the City of Gaithersburg has regulations affecting the removal of trees and forest, certain approvals may need to be obtained prior to this activity.

f. Pre-Development Human-Wildlife Interactions– Medium to Large Sized Mammals

The purpose of this section is to assess the extent to which existing wildlife is exposed to, and possibly habituated to, human activity. Part of the forested area of the site contains an active recreational paint-ball facility that supports frequent paintball gaming. Access to this part of the site is primarily by vehicle along a gravel and dirt path through the open meadow. The areas surrounding the site are active areas with regular activity. For instance, to the north-east, I-270, a major commuter roadway, parallels the property. To the southwest, freight trains pass by the site frequently while a commuter train stops at the site to pick up / drop off passengers at the commuter train station. To the north, the McGowan tract, the open utility transmission lines, and the Great Seneca Park and Greenway system provide a much calmer and less-influenced forested habitat than is offered at the site. The exhibit on the following page identifies existing sources of human influence to wildlife on and nearby the site as well as general wildlife corridors.

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g. Area - Edge Ratio

The area -edge ratio is a value of the area of the forest stand to the number of linear feet of the edge of a forest stand. The greater the number is, the larger the forest relative to the amount of edge. This technique is usually employed to prioritize forests for management strategies as it relates to forest health in addition to wildlife species habitat preferences. Different wildlife species known to exist at this site have varying preferences related to their habitat as it relates to the forest edge. Generally, deer prefer forest edges for the forage that the adjacent meadows and fields provide while maintaining the safety of immediate retreat to the forest. Some bird species may prefer habitat situated further in a forest from the edge to avoid predators.

The existing area – edge ratio for this site, including the forests which are contiguous with the site is 335. Upon full build-out of the site, excluding the regional CCT project and Watkins Mill ramps, the edge-area ratio will be 256.

h. Identification of How the Development will Minimize 'Pinch-Points' along Wildlife Corridors

Pinch-points are areas along an existing or previously existing wildlife corridor that restrict, to some degree, the movement along the wildlife corridor. Bridges and culverts are common examples of pinch points along stream valley wildlife corridors.

It is important to note that this site is not an isolated habitat in and of itself. This site serves as a terminal point generally contiguous with the 6,000 acre Seneca Park to the north. I-270, Quince Orchard Road, and a MARC/CSX railway surrounded by industrial development, are all well-established and active land uses that deter most wildlife movement activity from the east, south, and west. Generally, wildlife movement is in a north-south direction south of Seneca Park and an east-west direction along the Seneca Park greenway.

With the exception of proposed Watkins Mill Road, there are no other permanent pinch-points along wildlife corridors. Along the perennial tributary parallel with I-270, an elevated bridge for Watkins Mill Road, to be built on concrete abutments, is proposed to span the stream valley resulting in a remaining passable section that is more than 200' across by 30-40' high beneath the bridge. With this type of clearance, it is expected that vegetation will remain and wildlife will continue to move through this area.

North of the Watkins Mill Road Bridge, an intermittent tributary drains from the site and joins the perennial tributary along I-270. The proposed Watkins Mill Road intersects this small tributary approximately 1200' upstream of its confluence. Above the proposed crossing, approximately 800' of stream valley remain. To accommodate the passage beneath this road crossing, a bottomless arch culvert is proposed. This type of culvert, with an opening approximately 8' tall by 10-12' wide with a rocky stream bottom will allow most smaller-medium sized mammals to move freely past the structure. It is possible, but not highly likely, that Deer will choose to move through this culvert. Smaller mammals such as raccoons, foxes and possums would be more inclined to utilize this crossing.

i. Identification of Linkages for Isolated Wildlife Habitat Areas

The existing condition of the site currently provides 125 acres of open habitat for different species of wildlife. Because the species present have varying modes of movement and

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home ranges, this section will address those species most likely to benefit from wildlife linkages. This section will also discuss two timeframes – the initial construction phase and the built-out phase.

The initial construction phase, including the clearing, grubbing, and mass-grading will result in the direct removal of wildlife habitat. This phase includes accessing the site along a proposed bridge over the CSX tracks from the west and along the rail road tracks from the south west. With construction equipment and activity advancing from the west and southwest, most mammals will flee away from the activity towards the north and north-east. Along the north and north east border of the property, a forested greenway, which joins Seneca Park to the north and forested City of Gaithersburg property to the south, exists. This greenway provides a linkage from the site to safe retreats to the south and north. Figure 5 identifies the general direction of construction advancement with wildlife flee directions and appropriate linkages.

Figure 46: Map indicating the general direction of construction entry and progression (grey arrows) and the resulting direction of wildlife retreat (green arrows).

Once the site becomes built out, certain wildlife habitat will still exist on and adjacent with the site. Two forested stream valley greenways will go through and into the site connecting to larger forested habitats to the north. The proposed Watkins Mill Road interchange proposes to intersect both of these greenways. Along the perennial tributary parallel with I-270, an elevated bridge built on concrete abutments is proposed to span the stream resulting in a remaining passable section that is more than 200' across by 30-40' high beneath the bridge. South of the bridge, the greenway extends along the edge of the property un-obstructed by any permanent structures or barriers. North of the Watkins Mill Road Bridge, an intermittent tributary drains from the site and joins the perennial tributary along I-270. Proposed Watkins Mill Road intersects this small tributary approximately 1200' upstream of its confluence. Above the proposed crossing, approximately 800' of stream valley remain. To accommodate the passage beneath this road crossing, a bottomless arch culvert is proposed. This type of culvert, with an opening approximately 8' tall by 10-12' wide with a natural stream bottom will allow most mammals to move freely past the structure. Approximately 400' above the Watkins Mill Road stream crossing, Street 'A' is proposed to cross the top of this intermittent stream. With little forested habitat, most of which is the area formerly occupied by the recreational paintball facility, efforts should be made to deter wildlife passage. In addition to the culverts, 10'+ tall headwalls will be erected perpendicular the stream valley and wildlife

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corridor. These walls will serve to reduce impact to the stream valley as well as limit most wildlife from coming up onto the road way.

In conjunction with representatives of the HSUS, further evaluation shall be given to determine the need for other local measures to reduce the likelihood that wildlife will come into contact with vehicles along these roads.

j. Landscape Design and Natural Resource Management Practices That Would Provide Habitat Enhancement

In conjunction with the HSUS and the City of Gaithersburg, various measures shall be proposed and implemented that promote landscape design and resource management practices. While likely to be refined, the following are some examples of measures that could be undertaken to promote habitat enhancement within the housing and/or urban core communities:

Utilization of non-desirable plant material to minimize deer-human conflicts
Stream restoration to improve aquatic environment
Invasive species and forest management
Vegetated bio-retention facilities
Stream valley reforestation
Educational materials for homeowners
Design & Landscaping to inhibit Canada Geese in Stormwater Management Pond

As part of the development and improvements for the property, measures shall be taken that improve the stream valley that parallels I-270. Currently, this corridor is partially forested with invasive vegetation species *(Microstegium vimineum, Smilax rotundifolia, Polygonum sagittatum, Rosa multiflora, Lonicera spp., Celastrus orbiculatus)* compromising the native forest health. The perennial stream channel demonstrates urbanized conditions such as stream incising, stream bank failures, floodplain disconnection, and excessive sediment movement.

Stream valley improvement measures shall be undertaken to improve the aquatic, forest, and terrestrial habitat quality of this stream valley. Such measures may include stream channel restoration, invasive species removal, native species reforestation, as well as the possible incorporation of bird houses and wildflower mixes to enhance wildlife biodiversity.

k. Grading/Wildlife Activity Schedule

As discussed previously and as the 'Wildlife Matrix' in the Appendix of this report indicates, late-March through June is the most sensitive timeframe for the species targeted on this site. With mass-grading scheduled to begin during this timeframe, there is a potential conflict with wildlife activity, particularly to defenseless young wildlife.

To avoid these impacts, the forested areas ultimately proposed to be removed should be cleared prior to mid-March to allow animals to find habitat elsewhere to give birth and raise their young.

l. Recommendations

See Section 3.0 of this report for the final recommendations.

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Appendix C:
Photo Gallery

Figure 5 (9/29/05): Wildlife sweep team member searches for wildlife activity

Figure 6 (9/29/05): Wildlife sweep team member uses a stick to sift through tall grass to find wildlife activity

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Figure 7 (9/29/05): Wildlife sweep team member uses a stick to push aside Multi-flora Rose branches

Figure 8 (10/13/05): Team member holds a captured Box Turtle

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Figure 9 (10/13/05): 'Drew', a dog trained to find Box Turtles, searches through a growth of Stiltgrass

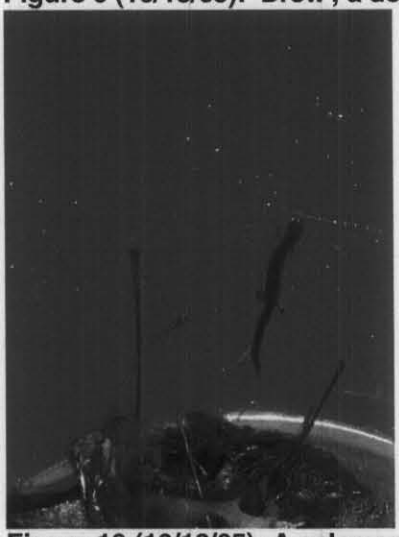

Figure 10 (10/13/05): A salamander attempts to escape from the temporary holding bucket

Figure 11 (10/13/05): Team members search for signs of wildlife

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Figure 12 (10/13/05): A yellow ribbon marks a chipmunk burrow

Figure 13 (10/13/05): A yellow ribbon marks a chipmunk burrow

Figure 14 (10/13/05): A Red-backed Salamander exposed from beneath a log

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Figure 15 (10/13/05): A team member holds a captured Toad

Figure 16 (10/13/05): A team member searches through debris for wildlife signs

Figure 17 (10/13/05): A team walks along a transect searching for wildlife signs

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Figure 18 (10/13/05): Team members searching for wildlife signs

Figure 19 (10/13/05): 'Drew' finds a Box Turtle

Figure 20 (10/13/05): Several captured Garter Snakes

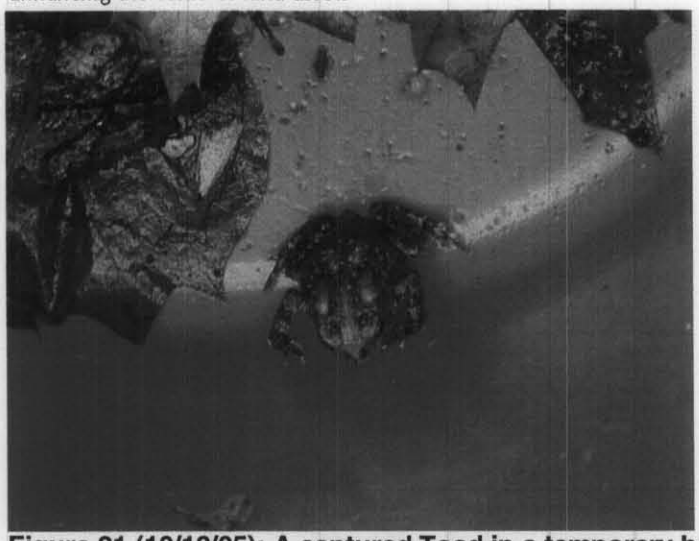

Figure 21 (10/13/05): A captured Toad in a temporary holding bucket

Figure 22 (10/13/05): Team members reviewing their wildlife findings

Figure 23 (10/13/05): Team members sort through the findings to count individuals

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Figure 24 (10/13/05): A team member holds a captured Leopard Frog

Figure 25 (10/13/05): A HSUS staff member and trained dog hold a Box Turtle

Figure 26 (10/13/05): Team members collect a Garter Snake

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Figure 27: Area identified to be an active wildlife habitat

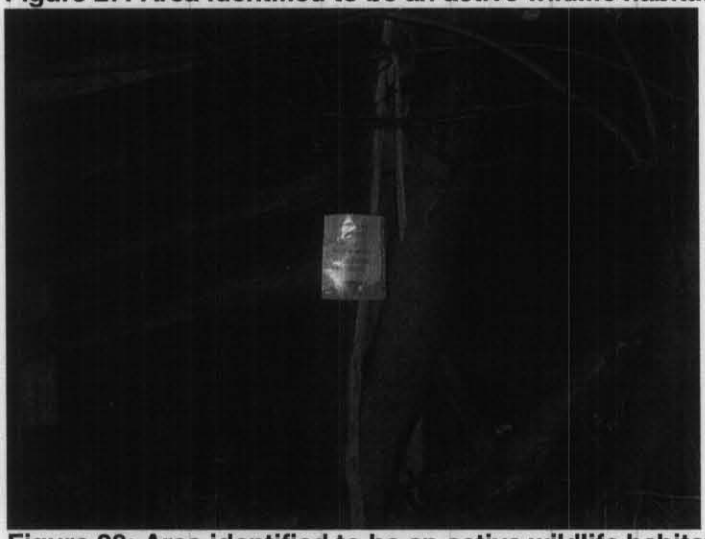

Figure 28: Area identified to be an active wildlife habitat

Figure 29: Area identified to be an active wildlife habitat

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Figure 30: Area identified to be an active wildlife habitat

Figure 31: Area identified to be an active wildlife habitat

Figure 32: Area identified to be an active wildlife habitat

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